

REMARKS

Applicants have carefully considered the May 19, 2006 Office Action, and the comments that follow are presented in a bona fide effort to address all issues raised in that Action and thereby place this case in condition for allowance. Claims 1-23 are pending in this application. Claims 16-23 have been withdrawn from consideration pursuant to the provisions of 37 C.F.R. § 1.142(b). Applicants respectfully request rejoinder of Group II (claims 16-23), which are directed to a method of vapor depositing a lubricant film, upon the allowance of any of the claims in Group I in accordance with the rejoinder provisions of M.P.E.P. §§ 821.04 and 806.05(e).

Entry of the present response is respectfully solicited. It is believed that this response places this case in condition for allowance. Hence, prompt favorable reconsideration of this case is solicited.

Claims 1-15 and 25-27 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,613,151 (hereinafter the '151 Patent). Applicants respectfully request that the Examiner hold this rejection in abeyance until allowable subject matter is obtained in the present application. It is noted that claims 25-27 were cancelled in the Amendment dated February 16, 2006.

Claims 1-13 and 15 were rejected under 35 U.S.C. § 103(a) for obviousness predicated upon Helling et al. (U.S. Pat. No. 5,882,415, hereinafter "Helling") in view of Dick et al. (U.S. Pat. No. 5,904,958, "Dick"). Claims 1-13 and 15 are free from the applied art for the reasons set forth below.

As described in the present specification, the claimed invention relates to an apparatus for uniformly applying a thin film of a lubricant to substrate surfaces in a solventless manner. The

invention has particular utility in the manufacture of magnetic or magneto-optical ("MO") data/information storage and retrieval media comprising a layer stack or laminate of a plurality of layers formed on a suitable disc-shaped substrate, wherein a thin lubricant topcoat is applied to the upper surface of the layer stack or laminate for improving tribological performance of the media when utilized with read/write transducers operating at very low flying heights (page 1 of the specification, lines 5 through 14). The present invention addresses and solves problems and difficulties in achieving uniform thickness lubricant thin film deposition by providing an inventive apparatus for vapor depositing a uniform thickness thin film of a lubricant on at least one surface of a disc-shaped substrate which contains a magnetic and/or MO data/information storage and retrieval media (page 5 of the specification, lines 10 through 18).

Independent claim 1 is directed to an apparatus comprising elements which are structured and positioned to vapor deposit a uniform thickness thin film of a lubricant on at least one surface of a disk-shaped substrate. The claimed apparatus comprises a chamber having an interior space; and a substrate loader/unloader. The claimed apparatus further comprises at least one elongated lubricant vapor source comprising a closed heated chamber which contains a liquid lubricant, said closed heated chamber fluidly communicating with at least a plurality of primary plugs for supplying a stream of lubricant vapor. The claimed apparatus also comprises a substrate transporter/conveyor which continuously moves at least one said disk-shaped substrate past said stream of lubricant vapor from said at least one elongated lubricant vapor source for depositing on at least one surface thereof a uniform thickness thin film of lubricant.

Applicants submit that the Examiner has ignored an express structural limitation of the present claims and has mischaracterized this express structural limitation as an "intended use" limitation. Independent claim 1 requires that the apparatus includes a chamber having an interior space; and a substrate loader/unloader that is adapted for supplying and withdrawing at least one-

disk shaped substrate which is a magnetic or magneto optical data/information storage and retrieval medium. Applicants submit that neither Helling nor Dick discloses or suggests a loader or unloader that is adapted to supply and withdraw a disk-shaped substrate from an interior space of a chamber. Moreover, the very concept of coating a magnetic medium is foreign to Helling and Dick, let alone coating a magnetic medium with a lubricant. The apparatus disclosed by either Helling or Dick is not structured to and is not capable of vapor depositing a uniform thickness thin film of a lubricant on at least one surface of at least one disk-shaped substrate that is a magnetic or magneto optical data/information storage and retrieval media. Thus, even if the applied references are combined as suggested by the Examiner, and Applicants do not agree that the requisite realistic motivation has been established, the claimed invention will not result.

*Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

Moreover, the Examiner has failed to explain why one of ordinary skill in the art would have been motivated to combine the apparatus of Helling which provide thermal barrier coatings via electron beam vaporization to turbine blades (col. 1, lines 18-21), with the apparatus of Dick which vapor deposit organic monomers such as polyfunctional acrylic monomers on moving, continuous sheets of paper or metal. Applicants respectfully submit that the Examiner is merely picking and choosing the limitations of the prior art to back into the present invention without the requisite motivation. In the instant case, the Examiner's announced motivation is nothing more than a generalization. The Examiner merely asserts that one of ordinary skill in the art would have been motivated to modify Hellings's apparatus with Dick's adjustable evaporator with nozzles plugs because it would allegedly offer "better control of deposition material." However, the Examiner fails to explain how the proposed modification would be implemented. Applicants submit that the Examiner has the burden of making a "thorough and searching" factual inquiry to support the conclusion that a person of ordinary skill in the art would have been motivated to

combine the references so as to arrive at the claimed invention. *In re Lee*, 237 F.3d 1338, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002). The Examiner offers no such factual inquiry to support the conclusion. It is not readily apparent, and the Examiner has not at all explained, how Helling's apparatus, which as admitted by the Examiner fails to even suggest a lubricant vapor source, could be modified with Dick's evaporator that is adapted to vapor deposit monomer material to a continuous sheet of material. Accordingly, the rejection should be withdrawn for at least this reason.

In view of the foregoing, Applicants request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a).

Claims 1-15 were rejected under 35 U.S.C. § 103(a) for obviousness predicated upon Hedgcoth (U.S. Pat. No. 6,036,824, hereinafter "Hedgcoth") in view of Dick et al. (U.S. Pat. No. 5,904,958, "Dick"). It is assumed that the Examiner intended to reject claim 14 in the statement of the rejection since this claim was discussed in the body of the rejection. Applicants submit that claims 1-15 are free from the applied art for the reasons set forth below.

The Examiner has failed to explain why one of ordinary skill in the art would have been realistically motivated to combine the apparatus of Hedgcoth which deposits magnetic thin films used for magnetic recording media, with the apparatus of Dick, which vapor deposit organic monomers such as polyfunctional acrylic monomers on moving sheets of paper or metal. Applicants respectfully submit that the Examiner is merely picking and choosing the limitations of the prior art to back into the present invention without the requisite motivation. Applicants note that the Examiner has the burden of making a "thorough and searching" factual inquiry to support the conclusion that a person of ordinary skill in the art would have been motivated to combine the references so as to arrive at the claimed invention. *In re Lee*, 237 F.3d 1338, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Applicants submit that the Hedgcoth and Dick are not within the same field of endeavor, and that one of ordinary skill in the art would not have been realistically motivated to combine the references, as proposed by the Examiner. One skilled in the art confronted with the problem of Hedgcoth (continuous production from a direct current planar magnetron sputtering apparatus to mass produce magnetic thin film memory disks - col. 2, lines 13-17) would not look to Dick (evaporation of organic monomers at high temperatures to minimize the effect of thermal expansion upon cross-direction coating uniformity - col. 1, lines 50-54) to solve its problem, because Hedgcoth is not reasonably pertinent to the particular problem addressed by Dick and *vice versa*.

In view of the foregoing, Applicants request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a).

It is believed that all pending claims are now in condition for allowance. Applicants therefore respectfully request an early and favorable reconsideration and allowance of this application. If there are any outstanding issues which might be resolved by an interview or an Examiner's amendment, the Examiner is invited to call Applicants' representative at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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